

## **EPA Inspections and Sampling done in the Northeast Juneau County**

In June of 2017, EPA conducted a production area inspection and file review to determine if Central Sands Dairy (CSD) was in compliance with its Wisconsin Pollutant Discharge Elimination System permit and Nutrient Management Plan.

### **Ex. 5 Deliberative Process (DP)**

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In October of 2017, EPA sampled 13 private wells and four surface water locations in northeast Juneau County, Wisconsin (Table 1 and Table 2). Five private wells had nitrate-nitrite results greater than 20 mg/L; one well result was 10.1 mg/L and the other seven wells were less than 10 mg/L. The drinking water standard is 10 mg/L. Potential sources near and surrounding the private wells are land application fields and the production area of CSD. EPA contacted all 13 private well homeowners by phone to share results and is in the process of providing the laboratory data in writing. EPA also collected 4 samples from surface waters (Table 2) in October 2017.

From April 30 - May 3, 2018 EPA sampled five private wells (three were repeated homes from the October 2017 sampling). This sampling was timed to coincide with spring land application. The five private wells samples had results between 21.9 – 40.4 mg/L of nitrate-nitrite. EPA has provided the five people with their laboratory results through e-mail or by mailing them a hard copy. EPA also conducted geo-probe sampling of the groundwater at 41 locations sampling along public road right-of-ways in northeast Juneau County, Wisconsin. At each location, EPA collected samples at two separate depths for a total of 82 samples. EPA is developing a public website to share the groundwater data that will include maps of the geo-probe locations and parameters analyzed.

In total, EPA collected samples from 15 private wells during the October 2017 and May 2018 sampling, 82 geo-probe samples along public road right-of-ways in northeast Juneau County, Wisconsin from April 30 through May 3, 2018, and four samples from surface waters in October, 2017.

#### **Attachments:**

Table 1: Results of private well data collected on October 23-25, 2017

Table 2: Results of surface water data sampled October 25, 2017

Table 3: Results of private wells sampled on May 3, 2018

**Table 1: Results of private well data sampled on October 23-25, 2017:**

Facility ID	Date of Sampling	Well Depth	Sample Location	County	State	Total Phosphorus (mg/L)	Ammonia-Nitrogen (mg/L)	TKN (mg/L)	Nitrate-Nitrite (mg/L)	Total Coliform	<i>E.coli</i> (MPN/100mL)
S01	October 23, 2017	42 feet	Basement Bypass	Juneau	Wisconsin	0.04	ND*	0.23	37.8	NA	<1
S02	October 24, 2017	60 feet	Kitchen sink	Juneau	Wisconsin	ND*	ND*	0.38	35.2	<1	<1
S03	October 24, 2017	30-35 feet	Outside spigot	Juneau	Wisconsin	ND*	ND*	0.22	5.50	<1	<1
S04	October 24, 2017	30-35 feet	Outside spigot	Juneau	Wisconsin	ND*	ND*	0.2	0.41	<1	<1
S05	October 24, 2017	30 feet	Outside spigot	Juneau	Wisconsin	0.04	ND*	ND	0.10	<1	<1
S06	October 24, 2017	48 feet	Kitchen sink	Juneau	Wisconsin	ND*	ND*	0.25	10.1	<1	<1
S07	October 24, 2017	22 feet	Kitchen Sink	Juneau	Wisconsin	ND*	ND*	0.22	8.59	<1	<1
S08	October 24, 2017	42 feet	Outside spigot	Juneau	Wisconsin	0.05	ND*	ND	4.83	<1	<1
S12	October 24, 2017	80-90 feet	Outside spigot	Juneau	Wisconsin	ND*	ND*	ND	0.23	<1	<1
S14	October 24, 2017	50 feet	Outside spigot	Juneau	Wisconsin	ND*	ND*	0.26	28.2	<1	<1
S15	October 24, 2017	40 feet	Kitchen sink	Juneau	Wisconsin	ND*	ND*	0.20	5.44	<1	<1
S20	October 24, 2017	50 feet	Basement	Juneau	Wisconsin	0.04	ND*	0.25	23.9	1	1
S22	October 25, 2017	Not sure	Kitchen Sink	Juneau	Wisconsin	0.04	ND*	0.28	28.4	91	<1

\*ND = Non-detect

**Table 2: Results of surface water data sampled October 25, 2017:**

Facility ID	Location of surface water	Date of Surface water	County	State	Nitrate-Nitrite (mg/L)	Total Phosphorus (mg/L)	Ammonia-Nitrogen (mg/L)	TKN (mg/L)	<i>E.coli</i> (MPN/100mL)
S16	S. Petenwell Lake	10/25/2017	Juneau	Wisconsin	0.49	0.09	0.26	1.33	1
S17	N. Petenwell Lake	10/25/2017	Juneau	Wisconsin	0.66	0.11	ND*	1.01	15
S18	Spud Creek	10/25/2017	Juneau	Wisconsin	4.29	ND*	ND*	0.36	20
S19	Cranberry Creek	10/25/2017	Juneau	Wisconsin	0.34	0.45	ND*	0.67	74

\*ND = Non-detect

**Table 3: Results of private wells sampled on May 3, 2018:**

Sample ID	Date	Depth	Location	County	State	Ammonia-Nitrogen (mg/L)	Nitrate-Nitrite (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Chloride (mg/L)	<i>E. coli</i> (MPN/100mL)	UNL** Nitrate	N15***
S01	May 3, 2018	42 feet	Basement bypass	Juneau	Wisconsin	0.0150-0.0480	34.4	34.4	ND*	32.6	<1		
S02	May 3, 2018	60 feet	Kitchen sink	Juneau	Wisconsin	ND	34.3	34.3	ND*	49.6	<1		
S03	May 3, 2018	Need to contact	Kitchen sink	Juneau	Wisconsin	ND	21.9	21.9	ND*	24.7	<1		
S04	May 3, 2018	Need to contact	Basement bypass	Juneau	Wisconsin	ND	40.4	40.3	ND*	39.7	<1		
S05	May 3, 2018	50 feet	Outside spigot	Juneau	Wisconsin	ND	29.1	29.1	ND*	36.8	<1		

\*ND = Non-detect

\*\*UNL = University of Nebraska Laboratory – still evaluating data

\*\*\*N15= Isotope of Nitrate – still evaluating data